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READING PURPOSES IN GEOGRAPHY

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As the teacher's function in actual practice becomes more and more that of director of study rather than that of lesson-hearer, the problems of pupil study stand out with increasing clarity. None of the study skills call with greater insistence for definition and development of teaching technique than those which are centered around reading. This activity is so fundamental to geography, for example, that its various uses in the one subject of geography should be discriminated by careful analysis. For what purposes do children read in this subject? Can they realize these purposes without instruction or with instruction that is merely incidental?

A listing of the various purposes with some definition of each may help to answer these questions. Accordingly there are presented in the following outline the reading purposes in junior high school geography, as ascertained thru the examination of considerable literature on the teaching of geography and thru the devotion of some thought to the subject. The list is not exhaustive; it is not objectively derived; but it is presented as something suggestive and definitive of the problems which teachers put before pupils in assigning them geography lessons. For better analysis the purposes of reading a single book and those involving the consultation of several books are given separately. It is hoped the list will help teachers to get the pupils' viewpoint, to sense more adequately the study skills which their assignments involve, and to progress more rapidly toward the fullest instructional efficiency.

A. Purposes of reading and study arising in the use of a single book

1. Reading as a "mode of living"
   Bobbitt (The Curriculum, pp. 229-237) urges that children do much reading in geography under no other impulsion than the instinctive desire to see life, not for information but for the sheer pleasure of entering "vividly into the life of a country."

2. To find an answer to a particular question or a narrow group of questions

The teacher may frequently ask a question to answer which the pupil may turn to a particular page or to several pages in his textbook and skim the lines to find the answer in one or several places. He may consult the index and look for a particular item on several pages. This power to use a book for quick consultation involves the ability to recognize the relevancy or irrelevancy of a paragraph with just a few scattered fixations.

3. To grasp the principal thoughts of a selection

The pupil in geography frequently is assigned to read about some subject in a geographical reader or other reference book and report the principal ideas found in the reading. This involves the ability to note relationships between ideas, to distinguish the main idea from the modifying and supporting ideas.

4. To visualize a situation

Very commonly this is the result desired by the teacher when assigning a reading in a geographical reader or a magazine. This is a most legitimate purpose inasmuch as the study of real geography depends on the pupil's concreteness of imagery.

5. To raise questions, to discover problems

The pupil does not have this purpose in mind, but the teacher may assign a certain reading knowing that the reading of it will throw the pupil into a state of perplexity or doubt, and desiring such an effect as that.

6. To raise questions, to discover problems, when that is the pupil's conscious aim

In "The Partition of Africa—" — a geography unit reported in the *Elementary School Journal* for November, 1919, (Vol. 21, pp. 98-111) Miss Edith Parker reported asking pupils to study certain textual materials with this question in mind, "Do they raise any additional questions?"

7. To induce the ideas gained from reading to associate themselves with as many items in the reader's past experience as possible

Carter describes this as the habit of making mental cross-connections. This is valuable, as it helps to weld one's new

experiences into the old. The reader is making a distinct effort, as he reads, to recall what he has learned earlier in the subject or in other subjects or outside of school, of which the new ideas remind him. Geography should be filled with comparisons and contrasts. (See Ralph E. Carter, "Teaching a Study Habit." *School Review,* 29: 695-706, 761-775)

8. To memorize the facts in the typical geography textbook

This problem should not exist, but the nature of textbooks in geography encourages it and most teachers make such assignments as require it.

9. To comprehend the organization of an article so as to be able to indicate the relations between the various ideas by an outline

Seventh grade children should do this with materials that are not too difficult. This skill involves the examining of the reading to find the principal thought and the analysis of all portions to determine the main divisions of the subject and the supporting details of each division. Similar to Purpose A-3 but involving much more analysis.

10. To draw conclusions from data or statements

We should be able to send seventh grade pupils to census statistics, for example, if they are carefully directed, to examine figures relating to industries over a period of years, and expect them to make simple deductions concerning the future in the light of their knowledge of the past.

B. Purposes of reading and study arising in the use of several books

1. To find an answer to a particular question or a narrow group of questions

Admirably illustrated in a geography unit the classroom procedure in the study of which is described by Miss Edith Parker (*Elem. Sch. Jl.,* 20: 188-202, November, 1919). Ability to get information on a particular point quickly by referring to encyclopedias, textbooks, geographical readers, etc., involves skimming and quick selection. A very desirable skill.

2. To visualize a situation. Similar to Purpose A-4, except that the mental picture will be a composite image resulting from several readings.

3. To look for and select information relevant to each one of a number of points

Miss Parker, in "The Partition of Africa," gave children an outline of eleven points. Each child went to several books to gather all the material he could find on each of those points concerning one African colony. To do this required the ability to test the reading materials for relevancy and also skill in synthesizing large groups of thought units.

4. To gather additional information or to acquire different viewpoints concerning a topic of which one already knows considerable

This involves the ability to recognize very speedily the ideas with which one is already familiar and to cast them aside, to bore thru much familiar material and catch the unfamiliar ideas which may be as few as two grains of wheat in a bushel of chaff.

5. To gather evidence in support of or against a proposition. This purpose sometimes leads the pupil into fields that appear at first to be foreign to his topic, but in answer to the question which is constantly in his mind as he reads, What has this fact or this opinion to do with my proposition? he may use it to forge an important link in his chain of argument. There are many opportunities for debate in geography. The activity is very desirable, for instance, with such topics as the Great Lakes-St. Lawrence Waterway project.

How do children proceed when they are given assignments in geography which involve reading for such purposes as those that have been given? Do they have methods which are economical and thoro? Can they be trusted to develop the appropriate skills by themselves? For example, can they learn, apart from teaching, how to use several books "to gain rather complete information in answer to a question?" Obviously, if children are not taught, they acquire such a power, if they acquire it at all, thru the wasteful process of trial-and-error.

It must therefore be our assumption that not only will the teacher know the reading purpose or purposes which his assignment involves, but that he will develop a technique for teaching the purpose, to the end that the pupil may acquire the study skill with proper economy. To suggest the detail with which the teaching procedure might well be thought out, steps for realizing four

of the reading purposes listed above are outlined in the remainder of this article. Altho the outlines are addressed to the student, it is obvious that they could not be used by pupils of junior high school age or younger as they are given. They are suggestions for teachers and are put in the form of directions to pupils for the sake of reality.

A. Using a single book for reading to visualize a situation (Purpose A-4)

I. Preparation for the reading

Before beginning to read, make up your mind that you are going on a little trip of exploration and that you will witness sights you have never seen. Have a map handy for reference just as you would if you were a tourist by auto or rail or water or air. Have paper and pencil at hand; you may need them to construct a graphic representation of the author's words.

II. Reading to visualize

1. *Frequently close your eyes* and see if you can accurately picture in mind the scene which the author is describing.

(1) If you have trouble in doing this because you do not understand some of the author's words, look them up in the dictionary. Then try again to see if you can picture the scene.

(2) *Think of that situation you have actually experienced*—people or places you have seen or heard—which is most like the description you are reading. Then try to get a mental picture of the contrasts between the two. Probably you will find that the new mental picture includes parts of a number of your previous mental pictures.

2. *Use the map* to note the location of all places mentioned. If you are traveling by steamboat up the Rhine, you will image the location of the cities in relation to the boat and the relative distances between them very much better by looking up each stage of your journey on the map.

3. *Use a physical map* or a contour map if one is at hand so as to help you picture the surface being described.

4. *Make use of any pictures in the text or within easy reference.* Study them as you come to the parts of the text which refer to them, with a view to recognizing all the items which the author describes.

5. If there are within access any actual objects of the same sort or a sort similar to those about which you are reading, try to

gain contact with them, so that your picturization of the description will be that much more vivid. For example, if you are reading of Roosevelt's hunting trip in Africa, and you have access to good zoological gardens, go there and study the African animals he describes.

6. *Make a rough sketch or drawing* if that will help you to picture the scene. Sometimes a description is rather intricate or you are given so many items in the situation that you find it difficult to hold them all in mind at the same time. Then a crude representation with pencil and paper of each item as it is given will free your mind to go on and grasp the next point. Finally, with the sketch before you, you can construct a mental picture of the entire situation.

B. Using a single book for study to induce the ideas gained from reading to associate themselves with as many items in the reader's past experience as possible (Purpose A-7)

I. Preparation for the reading

1. Before beginning to read make up your mind that you are not going to let the author do all the talking. You have ideas to contribute to the rounded development of the topic as well as he, and you are going to present them.

2. Study the topic and try to recall all your previous contacts with that subject or a similar one. Have these in mind before you start reading.

II. Study to induce the ideas gained from reading to associate themselves with as many items in the reader's past experience as possible

1. *Read in paragraph units.* Read the first paragraph rapidly but thoughtfully to gain the fundamental idea in it. When you have concluded the paragraph, think what the author's idea is.

2. *Recall the proper experiences* in your own mind with which this new idea ought to associate, by asking yourself the following questions:

(1) Of what experiences or ideas gained from my previous study of this subject does this new idea remind me?

(2) Of what does it remind me that I have gained from other subjects I have studied?

(3) Of what experiences that I have gained outside of school does it remind me?

3. *Think over the nature of the relation* of the new idea to these past experiences which it recalls. For example, Does it reinforce a general principle which you have already formed from previous study? In what respects is it similar to ideas or mental pictures you already have? In what respects is it different? Is there a relationship of cause or effect?

4. *When you have completed the assignment, decide what the author's main thought was and what the principal supporting thoughts were.* Then decide in what respects and at what points he added to your knowledge and your thinking. Such an evaluation, such a connecting of the new ideas with the old, will help you to remember what you read because it will mean more to you.

C. Using several books for reading to gain rather complete information in answer to a question—a question that cannot be answered categorically (Purpose B-1)

I. Preparation for the reading

1. *Consider your question.* What topics are in it under which you might find the desired information? For instance, if you were seeking to answer, Why can fruit be grown on Bayfield peninsula, Wisconsin, (on Lake Superior) better than in the central part of that state, 150 miles farther south, you might look for information under the following topics:

Wisconsin	fruit	climate	soil
Fruit	Wisconsin	climate	soil
Great Lakes	climate		fruit
Climate	Great Lakes		fruit

Make a list of such possible topics for your questions.

2. Before beginning to read, *list the sources* where you think you will be most likely to find information in answer to your question.

3. *Go first to the sources* most likely to give you brief digests of information, such as your text, encyclopedias, yearbooks. Then look in the card catalogue for books and in the Reader's Guide for magazine articles.

II. Reading to answer the question

1. *Use the tables of contents, indices, and other primary helps* which books, magazines, atlases, reports, and other sources of reference afford. These are the means of enabling searchers to examine materials quickly and find out if there is in them any in-

formation on the subject being studied. Just scan the helps for mention of any of the topics under which you decided your question might be treated.

2. *Use the secondary helps of paragraph headings, marginal condensations, and chapter previews* when examining a particular chapter in a book or searching under a large topic in an encyclopedia. Use them in the same way as the primary helps.

3. When you find some information that seems related to your question, *test it quickly with these three questions:*

(1) Does it give direct information in answer to your question?

(2) Does it give information on a particular topic which is similar to yours?

(3) Does it state general principles or rules which can be applied to answer your question?

4. *Take notes.* If you have to make a report at all extensive condense the pertinent ideas of the author into a few words and write them down so that you can organize your information after you have collected enough and recall the ideas read.

5. *Be watchful for suggestions of other sources of information.* These suggestions sometimes appear as authorities referred to in your readings, or the reference may be in the footnotes, or in a bibliography at the end of the chapter or book.

D. Using several books for study to gather evidence in support of or against a proposition (Purpose B-5)

I. Preparation for the reading

Before beginning to read study the proposition carefully with the following questions in mind:

1. Do I understand the meaning of all the terms used? Of the proposition as a whole?
2. What definite information on the subject do I already possess?
3. What general impressions do I have concerning the proposition?
4. What arguments can I now think of that will prove or disprove the proposition if sufficient evidence can be found to support them?
5. Where can I find material on this subject?

On separate slips of paper jot down a few notes to indicate your answers to these questions. Put a heading on each slip and underline it, so that you can later tell at a glance the nature of the ideas on the slip, as "Possible Arguments," "Possible Sources of Evidence," etc.

II. Reading for evidence

1. *Have this question in mind while you are reading: Does this idea have any bearing on the proposition for debate, either negative or affirmative?* In reading for a debate, you must expect to go thru much material that does not pertain to the question. That which is not useful for your purposes should be skimmed thru very hastily, but in order that you may select quickly the grains from the chaff, apply this test constantly.

2. *Take notes.* When you find fact or argument that impresses you as valuable for your purposes, condense the ideas to a few words and write them down. Observe these rules for note-taking: (1) Use slips of paper of uniform size (4″ x 6″ is the best size) and write on one side only. (2) Place on one slip only evidence relating to a single idea. (3) Indicate at the top of the slip the main topic to which the evidence relates, stated in not more than five words.

3. *Read on both sides of the question impartially.* Keep your mind open for evidence and arguments that your opponent may use. By knowing their side of the debate you can prepare to answer them.

4. *Put your IDEAS down on paper.* If additional ideas, arguments, possible sources of valuable information, or questions to be answered come to you as you read, set them down on paper so that you will not forget to consider them after finishing the article you are reading. Our "inspirations" must be conserved.

5. *Be watchful for suggestions of other sources of information.* These suggestions sometimes appear as authorities referred to in your readings, or the reference may be in the footnotes, or in a bibliography at the end of the chapter or book.

6. *Always consider the authority* back of your evidence and back of the evidence likely to be advanced by your opponents.

(1) Is he expert?

(2) Have you any reason to suspect that he is prejudiced?

7. *Do not waste time reading familiar materials.*

At first much of your reading will present rich materials for note-taking. Later, you will find much repetition of facts and opinions on which you already have adequate notes. Read such references very hastily, just catching a word here and there, especially the first sentences of the paragraphs, to be sure you recognize the thought and are not passing up new evidence.

Training for this reading purpose, to a greater degree perhaps than most of the other purposes, should be carried on on all the levels of secondary education. The above steps simply indicate an opinion as to what can be done on the junior high school level. Probably at senior high school maturity, pupils should be trained to regard a debating proposition simply as a suggested solution for a problem the full definition of which they will seek in their reading. The more complex types of reasoning, of fallacies, etc., can be most advantageously taken up in the junior college years.

RED ROCK CANYON, CALIFORNIA

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INTRODUCTION

Red Rock Canyon, California, is a veritable wonderland of rock forms. This canyon, in some respects, reminds one of the famous Bryce Canyon, Utah, but it possesses a uniqueness and distinction all its own. The present purpose is to call general attention to this relatively little known region of remarkably sculptured and colored rock formations. It is here proposed that the Federal Government set aside this district as a National Monument.

Red Rock Canyon is situated in Kern County, California, on the border of the Mohave Desert near the southern base of the Sierra Nevada Range. The road from Los Angeles to Owens Valley passes thru the canyon. After leaving the paved highway at the village of Mojave, a typical desert ride of about 20 miles brings one to the mouth of the canyon.

Among the several writers who have referred to the Red Rock Canyon strata, mention should be made of C. L. Baker who has

reported on the Mohave Desert region,[1] and J. C. Merriam who has studied the fossil mammals of the strata.[2]

General Features of the Canyon

After entering the mouth of the canyon one travels for a mile thru a narrow, steep sided valley hundreds of feet deep which has been cut by Red Rock Creek thru the hard crystalline rocks of the El Paso Mountains. The channel of the creek usually is dry, but at times, as in July, 1925, it carries a raging torrent. On emerging from the narrow valley one suddenly enters the generally wider irregular canyon which has been carved out of soft strata, and which is dominated by the wonderfully sculptured forms. The road continues thru this part of the canyon for about two miles to and beyond the little village of Ricardo.

The Rocks and Their Structure

From the granite and other associated crystalline rocks of the deep narrow valley at the eastern end of Red Rock Canyon, there is a sudden change to the strata of the wider, highly sculptured portion of the canyon in the general vicinity of Ricardo. This is because the Red Rock Canyon (or Ricardo) strata rest by sharp contact upon the eroded surface of the granite. The strata are only partially consolidated sediments of fresh water and sub-aerial origin. They consist mainly of beds of sandy and clayey material intercalated with many beds of volcanic ash and tuff, and with some thin sheets of lava. These beds are variously colored. It is evident that there was much volcanic activity in the region during the deposition of the whole series of rocks. The strata were deposited during relatively late Tertiary time as proved by the remains of various vertebrate animals which have been unearthed from them.

The accompanying diagram (Fig 1.) shows graphically the kinds, color, thickness, and position of the strata, and their relation to the granite. The various members of the stratified rocks represented in the section show a combined thickness of about 2500 feet. They are rather uniformly tilted 18° to the west, and they trend (strike) north 31° east. This structure has resulted from the tilting of a fault block involving the southern part of the El Paso Mountains and the Red Rock Canyon strata. A glance at Fig. 1 reveals the fact that the strata have been eroded deeply since they

[1] Univ. Calif., Bull. Dep't. Geology, Vol. 6, 1911, pp. 354-357, and Vol. 7, 1912, pp. 117-142

[2] Univ. Calif., Bull. Dep't. Geology, Vol. 11, 1919, pp. 437-584

were tilted so that nearly every strata of the great pile is wonderfully exposed.

DESCRIPTION OF THE ROCK FORMS

Rock forms varying from weird and fantastic to beautiful cathedral-like effects, and from sombre hues and snow-white to bright colors greet the eye at every turn as one emerges from the narrow canyon in the El Paso Mountains. Very soon the impulse to examine in detail the strange rock forms triumphs. It is like exploring a fairyland. As Philip Johnson, in a newspaper account, has said: "The harder bands of stone stand out as undulating ribbons of brilliant color, and the softer stone has been carved into forms both strange and beautiful. Here are pillars, organ pipes,

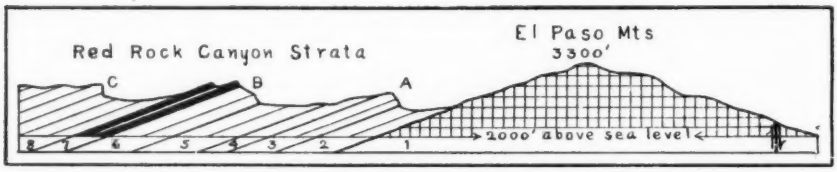

Fig. 1. A generalized west-northwest profile and structure section thru Red Rock Canyon in the vicinity of Ricardo showing the tilted strata resting upon the granite of the El Paso Mountains. Length of section, 3 miles. Vertical scale and tilt of strata are exaggerated. Thickness of the various series of strata only approximate. 1—granite and related rocks; 2—variously colored soft strata not well exposed (300 feet); 3—mostly reddish, greenish, and white soft sandstones and volcanic dust (200 feet); 4—pink volcanic tuff (125 feet); 5—variously colored, mostly soft, strata (350 feet); 6—sandy and shaly strata, reddish and gray toward the bottom and greenish gray in the upper part (350 feet); 7—two sheets of black lava separated by strata (175 feet); and 8—gray to yellowish brown shaly sandstones and volcanic tuffs with a few bands of reddish brown (1000+ feet).

façades with concave flutings, copings, pilasters, and closed doorways. In places the sculptures bear a striking resemblance to the carved figures of a Gothic cathedral. At times one finds it hard to believe that these rocks were not chiseled by human hands."

The accompanying illustrations, chosen from many pictures taken by the writer, are better than words to convey to the reader some idea of the unique scenic effects in Red Rock Canyon. Only a few of the more prominent features will be described.

After leaving the narrow portion of the canyon in the El Paso Mountains, the first interesting feature to attract attention is what may be called the great Eastern Façade (Fig. 2) which rises to a height of about 200 feet. This is at locality "A" in Fig 1. It consists of variously colored strata, mainly brownish red and greenish gray, soft sandstone and shaly sandstone interbedded

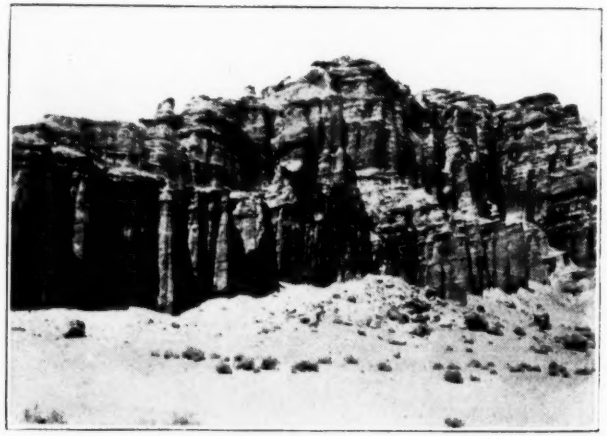

FIG. 2. The Eastern Façade

FIG. 4. The Little Cathedral on the left

FIG. 3. The pile of tilted strata of which the Eastern Façade forms the right hand face

FIG. 5. The Buried City

FIG. 6. A detail of the frieze-like forms in the Buried City.

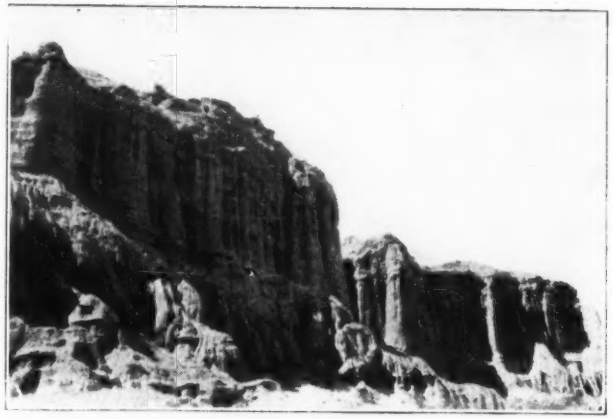

FIG. 8. The Great Temple

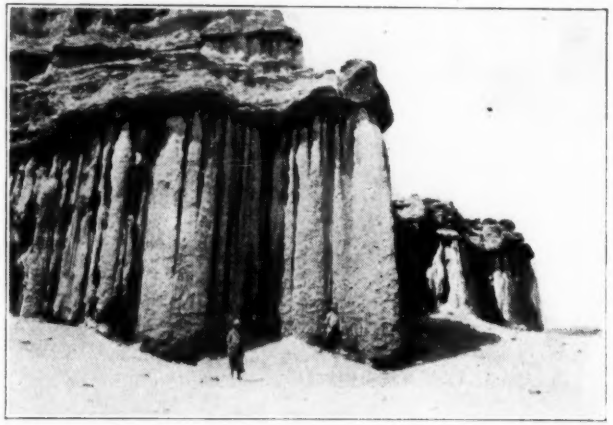

FIG. 7. The Clustered Columns

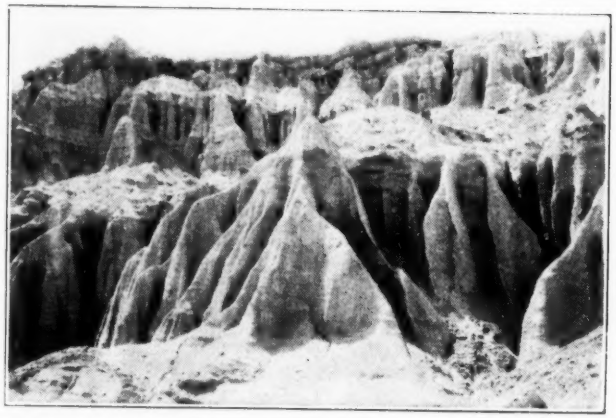

FIG. 9. Irregularly sculptured forms near the base of the Great Temple

with layers of nearly white volcanic dust. The upper, more highly colored portion of the façade is in well-defined layers and this superstructure is supported by a magnificent series of great pilasters each of which is several feet in diameter and 50 to 60 feet high. As viewed from the south across Red Rock Creek, the tilted structure of the strata in this great pile is very clearly shown (Fig. 3).

Great Temple

Across the canyon, to the southwest of the Eastern Façade, there is a remarkably sculptured pile of strata which may be called the Little Cathedral, the tower of which is surmounted by a mass of white volcanic dust (Fig. 4).

One-half of a mile farther west, and a little distance to the left of the road, there is a great escarpment which has been called the "Buried City" (Fig. 5). This escarpment rises several hundred feet, and it extends for a mile or more. This is at locality "B" in Fig. 1. The "City" portion, forming the lower part of the escarpment, consists of relatively harder, red and gray, deeply recessed groups of rounded and prismatic pillars of sandstone arranged in "stories" and separated by nearly horizontal layers which look like floors. A detailed examination of the Buried City reveals some narrow, horizontal bands of exquisitely sculptured softer materials which bear a remarkable resemblance to the frieze of an ancient temple (Fig. 6). Resting upon the "City" portion there are over 200 feet of greenish gray softer strata which do not stand out so boldly. Capping the whole escarpment there is a conspicuous sheet of black lava about 50 feet thick.

Near the road at the western end of the Buried City there is a fine display of what may be called Clustered Columns about 40 feet high supporting a series of alternating massive and columnar strata (Fig. 7).

What is perhaps the most beautiful and inspiring of all the rock forms of Red Rock Canyon may well be named the Great Temple (Fig. 8). It is situated one-half of a mile northwest of Ricardo (locality "C" in Fig. 1), and its glories cannot be properly appreciated from the road. This magnificent cliff rises to a height of fully 200 feet for a distance of a quarter of a mile. Its color is gray to yellowish brown with a very few bands of reddish brown. The mighty columns of the Temple support a roof of massive strata, and they rest upon a basement of fantastically sculptured strata (Fig. 9).

CAUSE OF THE ROCK FORMS

The Red Rock Canyon strata were deposited layer upon layer in practically horizontal order, upon a floor of crystalline rocks to

a depth of several thousand feet. Since their accumulation they have been moderately consolidated. Some series of these strata are notably uniform in composition and texture thru a thickness of 20 to 100 feet. These usually best show the nearly vertical columnar forms, as for example, in Fig. 7. Other series of the strata consist of relatively thin layers which show rapid alternations in character. Certain of the harder layers stand out conspicuously within the general body of relatively soft strata, as for example in Fig. 5.

The strata are no longer in a horizontal position because, as already suggested, a large fault block, involving the canyon strata, has been downtilted to the west (Fig. 1).

The whole set of partially consolidated strata has been transected by numerous, nearly vertical, more or less incipient natural cracks called joints, as well illustrated in Fig. 2.

Since the deposition, partial consolidation, tilting, and jointing of the strata, the whole pile has been cut into deeply by the processes of weathering and erosion, and the loosened materials have been carried away by Red Rock Creek. The many remarkably sculptured rock forms have, in reality, resulted from differential weathering and erosion in which rain-wash has played an important part. During a heavy rain the softer materials are of course worn away faster than the harder, causing the latter to stand out in bolder relief. The great columnar forms have developed best in the thick beds of nearly uniform materials where the effects of the rain-wash have been greatest along the joints (Fig. 7). Local details of the more fantastic rock forms have resulted from the attack of weather and rain-wash upon unequally jointed and resistant materials. (Fig. 6).

The sheet of lava capping the ridge at the Buried City is so much harder than the strata underneath that it tends to protect the summit against erosion (Fig. 5). Many thousands of fragments of the edge of this lava, loosened by the weather, have rolled down and strewn the slope at the Buried City.

The softer, rather uniform, slightly jointed materials usually have been very irregularly eroded by rain-wash (Fig. 9).

SOME PRINCIPLES OF COMMERCIAL GEOGRAPHY

G. T. RENNER, JR.
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Is geography a science? A science is usually defined as an organized body of knowledge, which can be reduced to demonstrable principles or generalization.

GEOGRAPHY AS DISTRIBUTION

H. R. Mill, the great English geographer, has defined his field as "the science of distributions." If this definition be accepted, any item whatsoever, providing its distribution be shown, is subject matter for geography. This not only leads to an absurdity, but it places the emphasis of the subject upon location and space relations and neglects the discovery and formulation of principles, which are essential to geography's vitality and its claim to be a science.

GEOGRAPHY AS REGIONAL STUDY

In Germany, the emphasis in geographic work has been laid upon exhaustive regional study. It would seem that all facts pertaining to both the human environment and the natural environment which could be collected, organized and presented regionally has constituted to the German students geographic material. Measured in these terms, geography is merely the regional aspect of various sciences and possesses no principles of its own and hence can lay no claim to being a science.

GEOGRAPHY AS ADJUSTMENT TO ENVIRONMENT

American geographers have in the past pursued the English and German objectives, but there has gradually arisen in America the idea that geography is the study of the adjustment of man's activities to the environment. The idea of regional study has been incorporated as a powerful aid in geographic organization, while distribution and location are effectively employed in presentation, but neither the regional organization of facts nor their detailed distribution are any longer esteemed as worth-while ends for geographic study. Instead, the goal of geographic investigation has become the search for the relationships existing between human activities and the environment, which must be known in order that geographic adjustments may be described and explained. This quest for the relationships which underlie geographic adjustment

has resulted in the recognition that these adjustments tend to obey certain laws. The existence of these "laws of adjustment" gives to geography the right to be called a science. The adoption of this new concept of geography has suddenly revealed such a vast field for investigation that geographers have had as yet no time to formulate a list of laws or principles with which to lend formal unity to their science as has already been done in economics, physics, geology and other subjects. Indeed, the acquisition of a complete list of principles, marks an advanced stage in the development and life history of a science, not yet reached by geography.

PRINCIPLES OF GEOGRAPHY

There are many who still assert that geography possesses no laws or principles, but it is a truism to say that every earnest investigator in geography is aware of many valid generalizations or geographic laws. This is equally true in social geography, political geography, economic geography or any other of geography's several phases, and doubtless there soon will be collected and published, satisfactory lists of principles of geography covering the various fields comprising that science.

COMMERCIAL GEOGRAPHY

Commercial adjustments are but one of many types of adjustment which man has made to his environment. Commercial geography, a sub-division of economic geography, is the study of the relationships of commercial activity to the natural environment and a principle of commercial geography is a generalized statement of such a geographic relationship. There is here tentatively set forth a partial list of the principles of commercial geography.

PRINCIPLES OF COMMERCIAL GEOGRAPHY

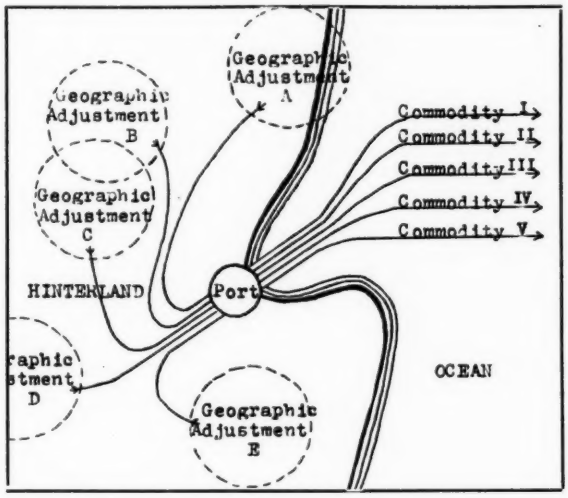
1. The growth of commerce has always been occasioned by the desire for gain, and those who make commercial adjustments to their environment have always aimed at the maximum advantage to themselves. The more profitable a trade becomes the more attention is paid to it.
2. Trade between regions arises where a difference in products exists, providing each region possesses a surplus of those products and the regions are mutually accessible.
3. A difference in exchangeable products is occasioned by:
   (1) Difference in the degree of complexity of geographic adjustment, i.e., in the stage of industrial development attained.

(2) Differences in skill and technology, i.e. in products arising from dissimilarity in manufactural adjustment.
(3) Differences in resources: (a) due to differences in climate; (b) due to differences in mineral equipment; (c) due to differences in soil, relief, vegetation, etc.

4. The first two bases for trade are disappearing, whereas the third is assuming greater importance, i.e. regional differentiation in economic activity is manifesting itself as geographic adjustment is refined. This points to the ultimate "geographical division of labor," with trade resting chiefly on a difference in resources.
5. Trade routes between peoples tends to flow along well defined channels each for the time being, representing the optimum geographic adjustment.
6. Tariffs, tolls and hazards tend to decrease the volume of trade carried over a trade route.
7. Environmental considerations being equal, trade routes tend to follow the shortest path between two productive regions.
8. The existence of large and wealthy populations between the producing and consuming areas, augments the volume of trade flowing between the two areas by furnishing an intermediate market.
9. Whenever, for any reason trade over existing routes is interfered with, an attempt will be made to make a new adjustment of trade routes.
10. Routes of trade and travel on land, tend to follow river valleys, lowlands, shores of water bodies and areas of cultivation and settlement, and areas where food and water for man and beast or fuel and water for locomotives are available.
11. Trade routes tend to follow paths where grades are gradual and where the surface presents the fewest irregularities, avoiding deserts, swamps, badlands and mountains as nearly as possible.
12. Trade routes converge at mountain passes or at the heads of arms of the sea which penetrate far inland.
13. Ocean trade routes are adjusted to: the sphericity of the earth; the shape of the continents; hazards in navigation; prevailing winds and currents; the productivity of various regions and the facilities for obtaining cargoes; the facilities for obtaining fuel.

14. Ocean trade routes tend to be concentrated into trunk lines by narrow straits, canals thru isthmuses connecting large land bodies, and by the necessity for approximating a great circle route in navigation.
15. Nations most interested in carrying the trade over a route will attempt to establish military control over the strategic or nodal points on that route.
16. A spread of ideas, culture and often political influence follows the exchange of goods.
17. Commercial centers grow up in spots of superior access—where there exists some advantage of transportation.
18. Commercial cities tend to develop at or near the centers of plains where there is afforded a convenient focus for roads and railroads. The size and importance of such commercial cities is proportional to the area, fertility and density of population of the surrounding plain.
19. Commercial cities develop at the intersection of trade routes. Cities may also spring up at the ends of mountain passes or at a gap between two valleys, or at the intersection of two or more valleys, or at the last stop before a trade route crosses a desert.
20. Cities, proportional in size and importance to the volume and value of trade carried over a trade route, will develop at the ends of that trade route.
21. Commercial cities tend to develop at narrows in an ocean route, at ports, or at points where cargoes are broken, i. e. where breaks in transportation occur.
22. Commodities which are valuable in proportion to their bulk, which have good keeping qualities, and for which there is an active demand will be transported over long, expensive routes, while commodities not possessing these qualities will enter less into trade.
23. Commodities fulfilling the above requirements and which, in addition, cannot satisfactorily be graded, possess ready divisibility and are consumed at great distance from producing regions are frequently handled thru an entrepôt.
24. Trade is slowly being decentralized, i. e. the trade of the world entrepôt is giving way to that of smaller commercial centers nearer the regions of production. This is occasioned by an increase in the volume of world trade, the multiplication of lines of transportation and the growth of widely separated centers of population.

25. Sea ports of a region tend to arise at the point farthest inland available to ocean transportation, i. e. the ends of bays and gulfs, the head of navigation in rivers, etc.
26. Great sea ports develop where there exists a combination of: a deep spacious, protected harbor; freedom from ice and excessive tides; a large, fertile, populous hinterland; ready access to the interior; space for docks and terminal facilities; and level area on which to build a city.
27. Irregular coastlines, easy communication between sea and interior and the presence of gulfs and inland seas favor a maritime commercial adjustment of peoples.



28. Populations located on indented narrow coast zones or offshore islands where there is a scarcity of agricultural land, tend to make a seafaring adjustment to their environment.
29. Peoples located along an inland navigable waterway or in a narrow lowland connecting two productive regions tend to develop commercial activity.
30. Where a dense population exists on a limited area of land, and is not due to the production of large quantities of food and raw materials, the importation of both are entailed.
31. Countries with small variety in climate, relief and resources possess a relatively enormous foreign trade.
32. Trade between two regions is most lasting and vigorous where cargoes exist to be carried both ways. This is sometimes offset by a triangular trade or by the use of return cargoes of coal or building stone carried at "bye-product rates."

33. The exports of a port issue as a long list of commodities. If each of these commodities be traced back thru the port it will be found to represent the surplus production of a specific economic geographic adjustment within the hinterland. (See Figure.)
34. As economic development progresses, geographic readjustments are made and the character of commodities exported from a region changes.
35. A region producing great quantities of bulky, low valued, imperishable goods requiring a small amount of labor in their handling, does its exporting thru a small port near the area of production. Such raw material ports are served by tramp steamers which require full cargo lots of commodities.
36. The trade in manufactured goods is centered in the older commercial cities where a great population and market and regular service by liners exists and where goods may be had in small quantities.
37. Wherever the wealth of an area is concentrated in the hands of a few people, a large, profitable trade in luxuries develops.
38. Where transportation is slow and irregular and communication is uncertain, goods are sold thru distribution centers or central markets.
39. Where transportation is rapid, communications are swift and where goods are standardized or of such a nature to be easily graded, they are marketed thru financial or transaction centers.

The Teacher's Problem

Geography teachers usually do not themselves know the principles of the science in which they are giving instruction. At best they may know only a few of geography's general truths, being dimly conscious that others exist. There are many cases where the teacher is not even aware that her science possess laws or principles, having regarded geography as a purely descriptive or informative subject. Where the teacher makes an earnest attempt to discover the vital truths of geography much time is usually lost by teacher and pupil alike in unguided study. When the teacher can finally be equipped with a thoro knowledge of the principles of her subject, her problems in teaching will be greatly simplified and geography will take on a clear cut character and vitality which the science does not now possess.

OUR STUDY OF RUSSIA UP TO 1918 AND OF SOVIET RUSSIA*

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My Grade 8 junior high school pupils, comprising about 200 pupils, found our study of Russia up to 1918 and of Soviet Russia of great interest. We came to many problems during our study of this country and found pleasure in our research work together to solve them. Before discussing whether this country is or is not a "World Power" today, we decided to work out the following introductory problem, and thus to define in our minds the meaning of the expression "World Power."

I. Introductory Problem: What are the requisites of a "World Power?"
   1. Capital
   2. Natural resources
   3. Common language
   4. Good form of government
   5. Strong character of the people
   6. Education—schools for all
   7. Colonies—territorial expansion
   8. Merchant marine
   9. Army, navy, air force (Even with disarmament, some forces must be kept in reserve.)
   10. Friendliness with other countries
   11. Good geographic position with accessibility to other world powers
   12. Suitable climate
   13. An industrial rather than an agricultural country
   14. A background of history
   15. Commerce and intercourse with other world powers
   16. A coast country rather than an interior country
   17. A form of religion

II. Was Russia a world power before 1918?

In solving this problem we gathered and reflected on these salient features of Russia's history. The races which first peopled

* Note:—Teachers should differentiate between Russia up to 1918 and Soviet Russia. The authority for the use of these terms is the Statesmen's Year Book.

Russia were vaguely known to the ancients as Scythians and their country as Sarmatia. Russia received its name from the Ruotsi or Russ, a tribe of Norse rovers of the eighth century. The "heroic epoch" followed. The feats and feasts of Vladimir we see in legend and song. Kieff became the first historic center in the eleventh century. The great cathedral of St. Sophia was built at this time, schools were opened, and the first Russian law was compiled. The next two centuries correspond to the feudal period of western Europe. During this time, Russia was extending toward the east and colonizing the Don, the Oka, and Finnish territory. Next we see Russia up to 1918 steadily climbing toward its goal of becoming a World Power in its growth around Moscow or the Kingdom of Muscovy, in the Tartar Invasion, in the growth under the Ivans, and in the establishment of the House of Romanoff.

But it is under Peter the Great that the country became a European State. The pupils enjoyed the study of this great character. In spite of his cruelties, Peter caused the rise of his country to a World Power. He gave his country a standing army, a navy on the Baltic, the beginning of a modern form of government, a diplomatic service, a money system. He realized the value of a knowledge of geographic principles. He knew that a country, to be a World Power, must not be an interior country but must have coast line, access to the sea. So Peter commanded the building of the "city on piles," St. Petersburg, later called Petrograd, today called Leningrad. Peter encouraged industry, literature, art. He completed the conquest of Siberia. He waged war with Charles II of Sweden and obtained Esthonia, Livonia, and part of Finland.

From Peter's time up to the World War, the country we are studying grew to be a recognized "Power." World powers feared that the spread of this land would absorb all neighboring lands. Japan became alarmed, since it was opposed to Russian domination in China, having desires of its own in China. England became alarmed, as by 1893 Russia's frontier almost touched British India at Kashmir and threatened English Persia. England's colonies were thus threatened; any further advance would be considered an affront to Britain. Russian political agents were scattered thru the Chinese provinces of Eastern Turkestan, Mongolia, Tibet, and were also in Persia, Turkey, and Afghanistan. The steady growth of Russian influence in China led to the Russo-Japanese War, 1904. The country had gained part of Poland in the Partition of Poland. Then, too, German leaders never allowed the Germans to forget

the menace of the Slav to Germany. Such was the growth of the little interior country of Muscovy to a World Power, extending to the Arctic Ocean, Baltic and White Seas, to the Pacific, and even to Alaska, and then south to the Persian Gulf, Black and Caspian Seas; a World Power feared by, and courted by others. Thus, up to the World War, Russia before 1918 had a strong enough central government to penetrate those border regions of strategic value in war and commerce.

Problem III. Why is Soviet Russia not a World Power today?

1. As a result of the World War, Soviet Russia lost most of the territory that we saw it gain in Problem II, i. e., Finland, Esthonia, Latvia, Lithuania, Poland.

2. The break up of the Russian Empire was natural, as the various parts were so diverse in language, customs peoples, ideals, history and the response of these various peoples to their environment. For instance, consider Poland, a distinct race, with a distinct nationality and love of country. It was only natural that it should desire its former freedom.

3. The apparent harmony of Russia before 1918 was merely centralized imperialism exercised on an ignorant peasantry.

After discussing these facts, we went back to our introductory problem and studied each of the requisites we considered that a nation needed to be a World Power, finding what Soviet Russia lacks today. For instance:

1. **Capital.** Soviet Russia in debt. Poverty great. American and English capitalists not willing to invest their money in a country with such a weak, changeable government. A pupil quoted the following from a recent article in the *Saturday Evening Post* to substantiate this fact: "The first and most outstanding fact that strikes the alien in any Russian community today is the universal poverty. It is stark, grimy, unrelieved. Beggary and Bolshevism have become almost synonymous. The rise in price of a few standard commodities will illustrate. In 1913, black bread cost one kopeck a pound, today, five. White bread has risen from four to fifteen. Flour has risen from three to ten kopecks. A man's business suit cannot be obtained for less than $200. An ordinary felt hat costs $25, a shirt $10."

2. Natural Resources.	Excellent. Many mines undeveloped, lacking capital to work them and to develop the natural resources of this vast land. As natural resources of other countries give out, they will be forced to develop those of Soviet Russia.
3. Common Language.	Even with Soviet Russia's losses of peoples with diverse languages, there are still many languages spoken by ethnic groups in Soviet Russia. As an article of recent current interest said, an attempt has been made to Latinize Georgia, Armenia, and Azerbaijan—a step in the right direction; i.e., that of causing the Latin languages to be used exclusively in these districts. It will take time for this to happen.
4. Good form of Government.	Here we discussed the cause of our unfriendly relations with Soviet Russia; i.e., Soviet Russia's attempt to avoid paying its debt to the United States due to its form of changing government, one form not willing to accept debts incurred under another form. This topic lends itself to endless discussion, but we are interested in government and history only in-so-far as it helps us understand geography. Government affects industry.
5. Education.	Eighty per cent of Soviet Russians are illiterate. New York City spends more money on its schools than does all Soviet Russia.

Thus we continued thru the points made in our first problem and readily saw why Soviet Russia is not a World Power today.

Problem IV. What possibilities has Soviet Russia of becoming a World Power in the future?

We took up this problem in the form of a debate, the pupils choosing to be either on the affirmative or negative side. Many good arguments were brought forth by both sides. In particular was discussed Soviet Russia's future possibilities in Siberia in agriculture; the willingness of other powers to help it, once it establishes a permanent form of government; the necessity of developing its resources as those of other countries become depleted; the strong character of the Russian peasant who "holds in

his breast the destiny of the Slav race"; the skill of the Slavs in literature, art, and music; the need of free public education.

The affirmative side produced the best arguments. Children are optimistic—thank God! They realized that much depends on Soviet Russia's attitude. In this point, the pupils spoke of the Locarno Conference and the League of Nations and Soviet Russia's attitude toward each. From the *Literary Digest* a pupil quoted the following: " 'The anti-Soviet sting must come out of the Locarno Treaty,' said Rakovsky, the Soviet Ambassador." Another quoted from the same source: "Soviet leaders and newspapers give vent to their indignation over the new international situation resulting from the Locarno negotiations, by such exclamations as, 'Germany has capitulated,' and 'England has won a great diplomatic victory.' "

Another pupil pointed out that a good feeling is seen in the following extract from the same article: "Referring to Soviet Russia's distrust of the League of Nations, Mr. Rakovsky, Charge D'Affaires at London, pointed to the question of disarmament and said, 'Our view is that we are prepared to go very far in that direction provided that the same measure be applied in all countries. Whether we are in the League or outside of it, the Soviet Union will fulfill faithfully any obligation it may assume.' " Time alone will give the answer to this problem. It is largely up to Soviet Russia itself.

We solved other problems arising in the minds of the pupils and also those formed by the teacher.

Another phase of our study of this country consisted in special individual topic work. As a home study assignment, I announced that the pupils might spend the alloted time (about a half hour) looking up, writing on, or preparing for oral class discussion on any phase of geography or closely correlated history of the country which they desired to study, or which had awakened an interest in them. I left the matter wholly to their own initiative and judgment, gave no suggestions of my own, desiring to see just what results I would obtain. We do not always give the children enough credit for their own ingenuity. The assignment proved of great value. Splendid work resulted. Very few pupils spent only the required time on the work, but of their own accord spent much extra time on their various topics and projects. Since our class time was limited in our course of study on Russia to three weeks, each pupil was given three minutes of class time to report. Many of the written topics were placed on exhibition in the room, and

others pasted in a large book (wall paper sample book, used as a scrap book for excellent work).

Some of the special individual topics given by the pupils are as follows—

1. A Project on Russia before 1918, and Soviet Russia. . . . Its Part in the World War. Pictures were pasted in this booklet, such as, Soldiers in Galicia; A. F. Kerensky, Fallen Premier, 1917; The Former Czar; Leon Trotsky and Nikolai Lenine; Michael Rodzianko, President of the Duma.
2. A trip to Soviet Russia
3. My trip on the Trans-Siberian Railroad
4. Comparison by chart of the population and area of Soviet Russia and other nations
5. Peter the Great
6. St. Petersburg—Petrograd—Leningrad
   The pupil gave an interesting quotation from the *Saturday Evening Post* of January, 1926. "The change in the name of Petrograd to Leningrad is one of the many evidences of the cult that has grown up since the death of the apostle of Bolshevism. He was scarcely dead before the deification of him began. Not only is his picture everywhere, but his sayings have become household words among the communists. The reverence for him has reached the extent that if you address a letter to Petrograd, instead of Leningrad, it is not delivered."
7. Comparison of the political map of pre- and post-war Russia
8. The animals of Soviet Russia from Arctic tundra to arid steppe
9. A Study of a chart of the percentage of total trade of pre- and post-war Russia (import and export) made up of foodstuffs, raw materials, manufactures. Comparison with other countries
10. A Study of the Railroads of Soviet Russia. The number of miles per every 10,000 people and per every 100 square miles. Comparison with other countries
11. A study of the population density
12. Oil in the Caucusus, with a study of the cities of Batum and Baku
13. Clippings of current events of Russia
14. The interest of the United States in Poland
15. Ukraine
16. Natural resources from Arctic to Black and Caspian seas
17. Commerce of Soviet Russia
18. Agriculture
19. Industrial and economic Russia
20. Siberia
21. Economic results of the Russo-Japanese war
22. Russia before 1918
23. Finland
24. Esthonia, Latvia, and Lithuania
25. Soviet Russia's limitations
26. Important cities
27. The rivers of Soviet Russia as roads
28. The Urals
29. Moscow
30. The peasant
31. The Kremlin

32. American machinery in Soviet Russia
33. The Samovar
34. Illustrious Slavs

Our study was vitalized by the excellent pictures on exhibition in our geography class room, some of my own collection, many brought in by pupils. A table was reserved in the room for articles from the country being studied brought in by the pupils. We also had many articles sent in by interested parents, valuable articles from the "old country."

We kept here books on the country, magazine articles, available for use by all pupils before school and during supervised study periods. Such magazine articles as the following were helpful:

M. O. Williams. Latvia, Home of the Letts; One of the Baltic Republics which is Successfully Working its Way to Stability. *National Geographic Magazine,* Oct., 1924

Visions of Pan-Europe. *Literary Digest,* Nov. 7, 1925

Arnold J. Toynbee. The New Map of Europe. *Atlantic Monthly*

Junior Red Cross Magazine

Articles from *Saturday Evening Post*

Our time went quickly and it was with regret that we closed for a while our study of this interesting land to proceed to the study of other countries. We did not drop our study at the end of our alloted three weeks' time, but referred to it often in our future study of other countries, in comparison and contrast.

COLLEGE CRUISE AROUND THE WORLD

DOUGLAS C. RIDGLEY
Member University World Cruise

To the Readers of the JOURNAL OF GEOGRAPHY:

At the request of the Editor of the JOURNAL, *I am sending notes which may be of interest to teachers of geography. In this report are included notes on three observations concerning the weather.*

A MIRAGE BY MOON LIGHT

On Wednesday, September 21, at 7:20 P. M., when about 100 miles from Havana, Mrs. Ridgley and I were on A-Deck, at an altitude about 30 feet above the sea, facing in the direction of the rising moon. The moon was just past full moon. It rose behind light cumulus clouds. A few minutes after rising, when the moon seemed to be two or three degrees above the horizon, a perfect mirage formed. It appeared as a broad river of water stretching away to the moon. The cumulus clouds took on the appearance of large icebergs floating in a wide river without definite banks. The apparent river seemed to occupy 10 to 15 degrees of the space toward the moon, with the moon in the center of the scene and a little above the river. The horizon apparently disappeared, and the river, with its burden of icebergs (cumulus clouds) seemed to stretch away horizontally into space beneath the moon.

This appearance remained distinct for about five minutes. Then, within less than one minute, the mirage rapidly faded into the natural condition of sky, sea, clouds, and horizon. The cumulus clouds were again in their normal position, near the horizon, above a quiet tropical sea, with the moon, in the distance, shining upon them.

The sea was calm and the air was warm. The explanation of the mirage seems to be as follows: A layer of warm, quiet air rested upon the smooth ocean surface. The upper smooth surface of this layer of warm air was below the level of the eyes of the observers, and acted as a reflecting mirror to the soft light coming from moon and clouds. The low, almost horizontal rays of the moon, and the light from the clouds, were reflected from the warm air-mirror to the eyes of the observers. In five minutes the moon had risen somewhat higher, its rays were somewhat steeper, and reflection ceased.

The angle of incidence and the angle of reflection of the moonlight, passing from the low-hanging moon and the low cumulus clouds to the surface of the air-mirror, and thence to our eyes, gave one of the most perfect landscape, or seascape, or air-scape views to be found in nature.

SHORE TRIP AT HAVANA

The day was a pleasant one in a tropical region. Tropical showers were in evidence and of a local nature. The heaviest shower experienced oc-

curred between 12 and 1 o'clock. It lasted about 20 minutes. The water flowed rapidly in the gutters. The rain stopped and in a few minutes the sky was blue. An observing student kept record of the showers of the day, and noted eleven separate showers, varying from a mere trace to a heavy rain.

RAINBOW AND SUNSET

The noon position of the ship for Wednesday, October 6, was 25°, 2″ North Latitude, 113° 19″ West Longitude, two days before arrival at San Pedro, the harbor of Los Angeles.

At sunrise a bright rainbow and a dim secondary bow were seen in the western sky, W. 30° S. The primary rainbow extended from the horizon to a height of 20°. It was visible for about 10 minutes.

During the late afternoon, the western sky began to show brilliant cloud effects, increasing in extent and brilliancy as the sun dropped lower in the sky. The magnificent color display was at its height shortly before and after sunset. About 120° of the horizon was included in the display with the sun at its center. The ship's meteorological observer recorded the clouds as *nimbus, cumulus,* and *cumulo-nimbus;* the sea smooth, with a slight swell. The clouds were numerous and the sky well-covered, but the density of the clouds seemed to be perfect for a brilliant color display. Red, orange, and yellow were predominant. The colors extended highest above the horizon in the vicinity of the sun, where they were brilliant to a height of about 30°. From this height, the arc of upper limit of color extended to the right and left, reaching the horizon about 60° from the sunset point in both directions.

As the sun approached the horizon, the smooth, glassy surface of the sea acted as a reflecting mirror from a line at considerable distance from the ship out to the horizon. This extensive sea surface had the appearance of a brilliantly colored mirror thrown into long, smooth undulations by the slight swell of the smooth sea. This mirror-surface, many square miles in area, reflected the brilliant red, orange, and yellow of the sky for 20 minutes or more.

As the sun sank below the horizon, fantastic shapes of clouds appeared along the horizon for 15° or more from the sun. These clouds seemed to rise out of the surface of the colored mirror of the smooth sea. Some of the shapes appeared as clumps of trees, others as individual trees at some distance from the clumps and other areas gave the impression of a distant village in the twilight.

Gradually, as the sun sank lower and lower below the horizon, the arc of the brilliant display shortened from right and left, came nearer the horizon at the sunset point, and presently the colors disappeared, leaving the ordinary sea-scape of a calm, peaceful ocean at nightfall.

The officers of the ship who had sailed the high seas in all seasons and in all climes told us that they had never witnessed a more brilliant sunset sky in their long experience and wide travels at sea.

THE PRINCE'S BIRTHDAY

KATHERYNE COLVIN THOMAS
State Normal School Buffalo, New York

This is a story about three little American children who went with their father and mother to live in Japan. The oldest of these children was Mary Belle; the youngest, Sarah. James was their brother, not so large as Mary Belle, but larger than Sarah. Mary Belle had light brown hair, James had brown hair, too, and Sarah had bright yellow hair. There are few American children in Japan so Mary Belle, James, and Sarah played with Japanese children. Hano and Tatsuo were their very good friends.

One day Mary Belle, James, and Sarah were playing on the steps of their home when Hano and Tatsuo came running as fast as they could, their wooden clogs making a great clatter.

"Do come with us!" they cried. "It's the prince's birthday and the prince is going to ride along the great broad street."

Mary Belle, James, and Sarah ran to their mother. "Mother," they asked, "May we go to see the prince ride along the great broad street? It's the prince's birthday."

"Yes, indeed," said their mother, "I shall be glad to have you see the prince ride by."

Mary Belle, James, and Sarah ran off with Hano and Tatsuo as fast as they could. They ran off so quickly they forgot to put on their hats. They ran past the fish store and past the china store and past the silk store, and they ran past the toy store so fast they didn't even stop to look at the toys, nor at the candy in the candy store, either. Soon they reached the great broad street along which the prince was to ride. There they found many Japanese people waiting to see the prince. There was almost no room left on the sidewalk but Hano saw a tiny place close to the street and slipped into it. Mary Belle slipped in beside her, then James, then Sarah, and last of all, Tatsuo. They all took hands and stood on tip-toe to see if the prince was coming.

The sun shone brightly that day. It shone on Hano and Tatsuo making their hair shine like black satin in the sunshine. It shone on Mary Belle, James, and Sarah making their hair look bright and golden. The Japanese people standing near began to look at the children. A little boy pulled the sleeve of his father's kimono.

"Look, father," he said. "Look at these queer children. See what funny hair they have. It looks like yellow silk thread."

The father looked. "They are strange American children," he said.

A little Japanese girl began whispering to her sister. "Look, sister. Look at these queer children. See what funny clothes they wear. They do not wear kimonos as we do."

"They come from a far-off land," the sister said.

Nearby stood a woman with a baby on her back. "Look, baby dear. Look at these queer children. See their blue eyes and white faces." The baby blinked his black eyes and stared at Mary Belle, James, and Sarah.

Just then there was a great noise down the street. All the people were saying, "Hurrah! Hurrah!" Of course they did not say hurrah as we do. Instead they said "Banzai! Banzai!" A troop of soldiers appeared. In their midst, riding on a beautiful horse, came the prince. He had black hair and black eyes like those of Hano and Tatsuo. He rode just as straight and looked just as kind as a good prince in a fairy story.

When the prince came near the place where Mary Belle, James, and Sarah stood he looked straight at them. I don't know whether the prince thought to himself, "What queer children! What funny hair! What strange clothes!" Whether he thought that or not he bowed to Mary Belle, James, and Sarah and smiled at them as kindly and as graciously as he smiled at Hano and Tatsuo and all of his black-haired people.

Mary Belle, James, and Sarah smiled back at him. "What a handsome young prince he is!" they cried. Their hair was so bright and their eyes so happy and their voices so gay that all the black-haired people about smiled at them just as sweetly and graciously as the prince had smiled and they all went home merrily.

The Response

The story, "The Prince's Birthday," was written for use in the second and third grades in the study of child life in other lands. It is not intended as a basis for the study of the Japanese child but for use after the children have learned thru pictures and other stories something of the appearance and life of the Japanese child. The purpose of the story is that of giving a glimpse of the other point of view, for an appreciation that there is another is a long step toward the tolerance and friendly spirit we endeavor to develop.

Several responses from the pupils are possible, the drawing of scenes, the retelling of the story, dramatization. The second

grade of our practice school played the story charmingly. The children were allowed great freedom in the dramatization. They decided those who should have the important parts, where the home should be, the best place for the street along which all the children who had no other parts stood to cry "Banzai" when the prince appeared. The children with speaking parts were not urged to use the language of the story but to say what they thought the little boy, or the father, or the sisters, would have said. In fact, the sentence, "They do not wear kimonos as we do," was added by one of the children. The children asked to play the story frequently and further correlation with the language work was developed by having the story retold by one of the children each time. No attempt at costuming was made but the children eagerly brought kimonos, fans, and umbrellas from home. The interest of the children constantly showed many avenues along which the project might have advanced had the time allowed.

PRELIMINARY PROGRAM—NATIONAL COUNCIL OF GEOGRAPHY TEACHERS

University of Pennsylvania, Philadelphia

Monday, December 27, to Wednesday, December 29, 1926

Harrisburg, Pa.,
November 18, 1926

DEAR COWORKER:

Teaching merely subjects to children is not wise. Today our problem is to create learning situations whereby pupils may function day by day as citizens who are being trained not only to earn a living but also to make living more worthwhile. The teachers of geography have their special contribution to make. Hence the theme for our Annual Meeting is "Geography in the Curriculum."

Let us come together from near and far with that openmindedness which must be a definite outcome of our geographic training and which will make it possible to keep our geography work dynamic.

We welcome you most heartily to the City of Brotherly Love. All school districts revising their curriculums are especially invited to send representatives. Special railroad rates of a fare and a half on the certificate plan will be granted.

Very sincerely yours,
ERNA GRASSMUCK, *President*

THEME—GEOGRAPHY IN THE CURRICULUM

There will be sectional meetings and general sessions.

SECTIONAL MEETINGS

Section A. Geography in the Elementary Grades (1—6)
Section B. Geography in the Junior and Senior High Grades (7—12)
Section C. Geography in Teacher Training Institutions (Normal Schools, Teachers Colleges, Schools of Education)

The Sectional Meetings will include clinics, with demonstration lessons, and round table conferences. The same class of pupils will be used thruout a given Section for the three demonstration lessons. In Sections A and C fifth grade pupils from West Chester, Pa., and in Sections B and C eighth grade pupils from Philadelphia are assisting.

SPECIAL FEATURES

1. An extensive display of geographic material for teaching
2. Booklets, posters and other forms of expression work by pupils*

*Teachers are invited to send expression work made by their pupils. For instructions write to Supt. E. W. Taylor, Ashland, Pa.

3. Excursions will be conducted to

(1) local centers: Stetson Hat Factory; Baldwin Locomotive Works; City Hall Tower; Sugar Refinery; Carpet Mill

(2) neighboring geographic regions: Atlantic City; Schuylkill Valley, including trip to anthracite coal mine

(If interested, write to Henry F. James, Logan Hall, University of Pennsylvania, Philadelphia)

MONDAY FORENOON, DEC. 27

GENERAL SESSION 9:30—10:30 A. M.

9:30—9:50 Welcome to Philadelphia
Dr. Edwin C. Broome, Superintendent Public Schools, Philadelphia

9:50—10:30 Geography Teaching in a Democracy
Dr. Francis B. Haas, Superintendent Department of Public Instruction, Pennsylvania

SECTIONAL MEETINGS 10:30—12:00

Sections A and C

Chairman. Thos. M. Gilland, Supt. of Schools, Donora, Pa., President, Geography Club of Southwest Pa.

Clinic. Demonstration Lesson with Pupils of Intermediate Grades; Setting up a Unit of Work. Anna P. James, Supervisor of Geography, West Chester, Pa.

Clinic. Demonstration Lesson: Directed Study. Anna P. James, Supervisor of Geography, West Chester, Pa.

Clinic. Discussion of Demonstration Lessons

Round Table Conference. Selecting Units of Work

Sections B and C

Chairman. Albert C. Eldredge, Asst. Supt. Schools, Cleveland, Ohio

Introduction. Angela Broening, Geography Supervisor, Baltimore, Md.

Clinic. Demonstration Lesson with Pupils of Eighth Grade: Setting Up a Unit of Work. Grace Broening, Teacher of Geography, Junior High School, Baltimore, Md.

Clinic. Trip with Class to Commercial Museum. Grace Broening, Teacher of Geography, Baltimore

Round Table Conference at Commerical Museum, Discussion of clinic work

Units of Work suited to Junior High Grades. Mrs. Claude C. Martin, Public Schools, Cleveland Heights, Ohio

MONDAY AFTERNOON, DEC. 27

SECTIONAL MEETINGS 2:00—3:00 P. M.

Chairman.

Sections A and C

Clinic. Demonstration Lesson: Socialized Presentation and Clinching. Anna P. James, Supervisor of Geography, West Chester, Pa.

Discussion

Sections B and C

Clinic. Demonstration Lesson: Socialized Presentation and Clinching. Grace Broening, Teacher of Geography, Junior High School, Baltimore, Md.

Discussion. W. M. Gregory, Cleveland

GENERAL SESSION 3:00—4:00 P. M.

3:00—3:20 The Contribution of Geography to Vocabulary
Dr. A. Duncan Yocum, Professor of Education, University of Pennsylvania, Philadelphia

3:20—4:00 Some Essentials in building a Geography Course of Study
Dr. Florence E. Bamberger, Professor of Education Johns Hopkins University, Baltimore, Md.

MONDAY EVENING, DEC. 27

GENERAL SESSION

Joint Meeting with the American Association for the Advancement of Science

TUESDAY FORENOON, DEC. 28

Round Tables 9:30—12:00

Section A

Chairman.

Criteria for Choosing Geographic Materials

Habits of Study in Geography, Emilie V. Jacobs, Principal McClure School, Philadelphia; Dr. Edwin C. Reeder, Asst. Prof. of Education, Teachers College, Columbia University

The Geography Excursion. Josephine Grainger, Dir. Elementary Grades, Allentown, Pa.

When is a Socialized Presentation Functioning? Clara M. Shryock, Asst. Supt. Cambria County Schools, Pa.; Ella M. Wilson, Ypsilanti, Mich.

Section B

Chairman.

How Tools in Junior High Grades Should Differ From Tools used in Elementary Grades

The Place of Excursions. Jennie Williams, Teacher of Geography, State Teachers' College, Emporia, Kans.

Contribution of Geography in Senior High Grades. Dr. A. P. Brigham, Hamilton, N. Y.

Section C

Chairman. De Forest Stull, Department of Geography, Teachers College, Columbia University.

Report of Normal School Committee of Teachers College, Columbia University, Units of Professionalized Subject Matter, E. Myrtle Grenels, Farmville, Va., E. Curt Walther, Towson, Md., Amy Ware, Salem, Mass.

Field Work as a Part of Teacher Training Courses, Dr. R. G. Buzzard, Normal, Ill.

An Introductory Course in Geography, J. F. Glazner, Jacksonville, Ala.

TUESDAY AFTERNOON, DEC. 28

GENERAL SESSION

2:00—2:45 Modern Concepts of Geography
Dr. J. Russell Smith, Professor of Geography, Columbia University, New York City

2:45—3:30 Report of Committee on Elementary School Geography

3:30—4:00 Geography Lessons as Means of Developing Wholesome Leisure Habits. Dr. Walter Lefferts, President Philadelphia Teachers Association

TUESDAY EVENING, DEC. 28

Geography Dinner and Rally
Meeting of Board of Directors and Executive Committee

WEDNESDAY FORENOON, DEC. 29

GENERAL SESSION

9:30—10:10 Problems Demanding Immediate Attention
Erna Grassmuck, President of National Council, State Director of Geography, Pennsylvania

10:10—11:00 Report of Committee on Secondary School Geography
Dr. A. E. Parkins, Professor of Geography, Peabody College for Teachers, Nashville, Tenn.
Nelle G. Hudson, Chairman, Junior High Geography, State Normal School, Edinboro, Pa.
Dr. R. G. Buzzard, Chairman, Senior High Geography, Normal University, Normal, Ill.

11:00—11:45 Qualifications Requisite for Teachers of Geography. Dr. J. Paul Goode, University of Chicago; Zoe Thralls, Indiana, Pa.; Margaret McCoy, Philadelphia

Accommodations. For information concerning rooms in hotels or private homes, write to Lucy Gendell, Normal School, 1301 Spring Garden Street, Philadelphia.

Registration. Teachers arriving Saturday and Sunday, December 25 and 26 register at Headquarters, Benjamin Franklin Hotel. Later arrivals register either at Headquarters Hotel or Information Desk, Logan Hall, 36th and Woodland Ave., University of Pennsylvania.

Meetings of the Association of American Geographers will be held Tuesday, Wednesday, Thursday, December 28, 29, 30. Members of the National Council of Geography Teachers may attend these meetings.

GEOGRAPHICAL PUBLICATIONS

Ellsworth Huntington and Frank E. Williams. **Business Geography.** 616 pp., 154 maps and diagrams. John Wiley and Sons, N. Y. 1926. $3.50.

The second edition of *Business Geography* is a marked improvement on the first. Practically it is a new book, since the first half has been entirely rewritten and the remainder has been revised and brought up to date. The organization is based on the viewpoint that geography consists of a study of (1) physiography and (2) ontography (animal, plant, and human geography).

The book is divided into five parts. Part I is devoted to a consideration of the influence which climate, relief, soils, minerals, etc., have upon the distribution of plant and animal life, and upon human activities. The main theme in this section was intended to be Man, but the environmental factors are stressed rather than the adjustments which man is making in the various parts of the world to these environmental factors.

Part II deals with the distribution of the more important types of animals, crops, and minerals. In each case the factors which affect production, distribution, and marketing are expressed clearly and logically. Abundant maps, grafs, and tables add to the clarity of the discussion. The non-use of the Mercator Projection is a definite step in the right direction, but the use of a split projection should not present serious difficulties since the book is intended for college students. The main criticism of the distribution maps is not so much the type of projection used (Denoyer's semi-eliptical), but the very serious omission of the dot equivalent on all those prepared on the Denoyer-Geppert base. They show distribution but much of their significance is lost because of this omission. Apart from these the maps and diagrams are clear and valuable.

Part III is designed to deal regionally with the United States and Canada, but it is concerned mainly with the former. The maps, with few exceptions, relate exclusively to the United States. It would have been distinctly advantageous if more mention had been made, both in the text and the maps, of Canadian production, particularly, in agriculture. But for this, the regional equipment and contrasts are discussed clearly.

Part IV treats the remaining continents in a more general way. The size of the book does not permit more than a very brief analysis.

The tables in Part V are brought up-to-date and the authors have indicated the sources from which these have been compiled, so that the student can obtain similar material for particular problems where statistical data are necessary.

The omission of pictures from the text is a great disadvantage. Well chosen pictures are essential to a full understanding of geographic principles and conditions, particularly when dealing with younger students whose horizon, frequently, is very limited. They are the best substitute for field work which is not practicable under all conditions. Even to more mature students good pictures are as essential as good maps for a fuller understanding of the principles as well as of the facts of production and distribution. It would have been better to have introduced more population maps so that the relation between population, production, and distribution would be more apparent.

The exercises at the end of each chapter suggest varied methods for the application of the principles under consideration, and for detailed studies of particular areas or topics. The book is well organized, written in an interesting way, and should prove a useful aid to the study of geography.

University of Illinois JOHN B. APPLETON

Ralph S. Tarr and O. D. von Engeln. **New Physical Geography**. 689 pp., 543 maps, diagrams and photos. The Macmillan Co., N. Y. 1926.

Tarr's new Physical Geography was published twenty-three years ago. It is welcome news to many teachers to know that a revised edition of this famous book has been prepared by Professor O. D. von Engeln of Cornell University.

The new edition, with its attractive cover resign, not only contains more pages than the original book, but also the pages are larger. Both the general arrangement and the subject matter of the original book have been preserved. The table of contents remains almost identical.

During the last twenty years the trend in advanced geography teaching has been so strongly toward human geography that, in many cases, altogether too little attention has been given to the earth itself. In the New Physical Geography approximately one-half of the space is devoted to a study of the lands, and much of the remainder to the ocean, meteorology, distribution of plants and animals, and man and nature. Accepting the definition of physical geography as "the study of the physical features of the earth and their influence on man," the reviewer ventures to suggest that, in the chapters dealing with the lands, not enough attention is given to the human interest of the topics. For example, in the discussion of glaciers and the glacial period, many cases of the influence of glacation upon man's activities could be mentioned briefly. This matter, however, depends upon the point of view in preparing a book on physical geography.

The illustrations constitute an excellent feature of the book. They are numerous and wonderfully well chosen to illustrate the text. Portions of topographic maps printed as full pages in color are very effective. It is somewhat unfortunate that a considerable number of the photographs have not been clearly reproduced. Some of these are figures 60, 91a, 133, 148, 158, 167, 170, 226, 241, 268, 309, 359, and 390. The explanation probably lies in the fact that the pictures have been printed on paper of a quality not good enough to bring them out with sufficient clearness.

The outline questions, and suggestions which are a very useful feature at the end of each chapter in the original book are preserved and improved upon in the new edition.

After a careful examination of the book, the reviewer congratulates Professor von Engeln in turning out such a fine revised edition of the New Physical Geography.

University of California, Southern Branch,
Los Angeles
WILLIAM J. MILLER

Chester Lloyd Jones. **Switzerland: Resources, Industries, and Trade.** Trade Information Bulletin. No. 421. 54 pp. 1926. Bur. of For. and Dom. Commerce, Wash. D. C. 10 cents.

This pamphlet is an abridgment of a longer report by the same author. It sets forth the bases of Swiss industrial life, analyzes the individual industries and the developments in their export trade. The development of Rhine traffic from Basel, and the electrification of the Federal railroads are recent plans of the Confederation. Only a small percentage of Swiss manufactures enter domestic trade. Hence, to create a demand abroad for their products, experienced designers and technical engineers keep informed as to demands for new types or styles of materials, frequently creating new designs and products to satisfy the caprices of the buyer. This is especially true in the textile and watchmaking industries.

GEOGRAPHICAL NOTES

Low Grade Iron Ores of Minnesota

The School of Mines of the University of Minnesota has devised a laboratory method of utilizing the low grade iron ores of the State. These ores are being reduced by lignite from North Dakota. If the method can be commercialized, the ores will be reduced in the State, preferably at the mines, and thereby decrease the cost of transportation which has been prohibitive on these low grade ores.

The Monsoon

Instead of spending so much time explaining the monsoon to children, a more or less futile attempt at best, would it not be better to teach the monsoon as it functions in the life of the Indian people? The Indains speak of only one monsoon, the rainy season. Until the rains come, the Indian farmer and business man are in a state of uncertainty. Then life begins to quicken and plans are made. Whether or not the season will be a successful one depends on the time the rains come and when they cease; how much precipitation they bring, and how evenly it is distributed thruout the entire rainy season.

Information of this sort is available from many sources. These statements were adapted from "The Monsoon and the Indian Market," an article appearing in *Commerce Reports* for December 6, 1924.

The New Agriculture Yearbook

Did you know that the Southern Pacific Railroad on its overland route has built 32 miles of snowsheds? In the Sierra Nevadas where snow on the level accumulates to depths of 25 or 30 feet, and where snow drifts in the valleys may be twice as deep, snow plows and rotaries are of little avail in clearing the tracks. These sheds of heavy timbers—virtually wooden tunnels—were built at a cost of $42,000 per mile of single track. Such costs as these, as well as the cost of the wooden snow fence set up every year, led men to ask this question: Can we make Nature herself counteract the work of her snow and wind? The answer to this question is the hedge of conifers or of deciduous trees set about 75 feet from the track, an effective windbreak where man pays the initial cost but Nature takes care of the upkeep.

Geographic material like this abounds in the Agriculture Yearbook, 1924. In addition to the agricultural statistics there are two articles of special interest to the geography teacher: "Highways and Highway Transportation," and "Weather and Agriculture."

Vilhjalmur Stefansson and Julia A. Schwartz. **Northward Ho!** 181 pp., 56 illustrations. The Macmillan Co., N. Y. 1925.

Miss Schwartz presents in this book various experiences of Stefansson selected from his writings on his travels down the MacKenzie River, along the Arctic coast of Alaska and Canada, and across the moving ice to Banks Island. Miss Schwartz has carried over into this book Stefansson's defense of the Arctic as a future home for others than Eskimos. Unfortunately, it has a flavor of "you need to be instructed in this matter," instead of a buoyancy and charm that would vitalize for the reader the grass lands of the summer and the ice camps of the winter. Boys and girls do not need to be reminded of false conceptions of polar regions. They need correct statements that will lead to concrete imagry of actual life conditions. The book, however, is a source of much valuable information of a geographic character, not a mere recital of facts about the Eskimos, but a relation of these facts to a polar environment. Stefansson does not pity these people. He respects them enough to learn to live there as they do. He has, moreover, accomplished what no one had dared previously to do: he, with Andreasen and Storkerson, left Alaska, walking north on the polar icepack into unknown parts of the Arctic, equipped with one sled and six dogs, depending upon his rifle to furnish them their daily food and fuel. The map of the country mentioned in the book would have been improved by showing the routes Stefansson took along the Mainland and on the Arctic Ocean. "Northward Ho!" is a companion book of "Kak," recently reviewed in the Journal.

State Teachers College,
Mankato, Minn.
CORA P. SLETTEN

David Starr Jordan and Katherine Dunlap Cather. **High Lights of Geography: North America.** 358 pp., 12 maps, 141 photos. World Book Co., Yonkers-on-Hudson, N. Y. 1925. $1.44.

The book is divided into two parts. Part I, "How the Earth was Made," is in reality a reader in physical geography. In the introduction of topics no attempt has been made to follow the logical sequence of the textbooks. The story of the great physiographic features of the United States stands out prominently. As a whole the book should develop in American children an abiding interest in the wonders and beauties of our country. Interest is enhanced in several instances by contrasting the scientific story of earth features with the Indian legends of their origin.

Part II deals with the development of life forms upon earth. The work on "Creatures of Forest and Field" is excellent, but the senior author is at his best, of course, in his description of "The Life of Stream and Sea."

As a whole the book is interesting and stimulating and is well suited as a geographical reader for junior high school. The frequent recurrence of rather advanced scientific terms will hinder its use in lower grades.

Parts of the book are necessarily sketchy, choppy, and incomplete because it attempts to cover so much. This is seen particularly in the work on the marmot, rabbit, squirrel and chipmunk, and again in the incomplete story of Bishop Bompas (p. 164).

The name of the series, "Highlights of Geography," is not true to the present day conception of geography. The ***highlights*** of the geography today lie in the realm of relationship—particularly the relations between human activities and earth conditions—rather than in mere facts and descriptions.

The reader is frequently impressed with the fact that the book has a strong local flavor, in other words, that California is getting more than its fair share of advertising.

Finally, the book would make a better appeal if the senior author's name appeared only on the title page, thus giving the impression of a first hand rather than a second hand story.

University of Nebraska
E. E. LACKEY

IMPORTANT SUGGESTIONS

1. Urge others to secure the *Journal* since you consider it to be one of the best investments they can make.

2. See that your school receives the *Journal*. The *Journal* should be in every school library. Have it placed there.

3. Maintain your own membership permanently.

4. Secure at least one new member within the next few months. This would double our membership and make many things possible. Remember that you are one of the owners of the *Journal*.

5. Send Dr. D. C. Ridgley, Clark University, Worcester, Mass., a list of school officials and teachers whose attention may be called to the National Council and the *Journal*. Dr. Ridgley is Chairman of the Membership Committee.

6. Study your local problem and tell Dr. Ridgley how best to procede to secure members in your state or community.

7. Send your Editor suggestions that will help to make the *Journal* more useful. Let him know what type of material should appear in the *Journal* to make it of greatest service.

8. Write, and encourage others to write, manuscript that you think might be helpful to teachers and students, and submit the same to your editors for consideration.

9. Cooperative actively and success is assured.

10. Make these suggestions operative *now*.

Alison Aitchison and Marguerite Uttley. **Across Seven Seas to Seven Continents.** 297 pages, 119 photos and illustrations, 3 maps. The Bobbs-Merrill Company, N. Y. 1925. $1.50.

As a supplement to a geography text for the fourth grade, this is a most admirable book. From the descriptive standpoint, it is a distinct achievement, and a valuable addition to elementary school geographic literature.

Several objectives are given:

1. The development of an elemental notion of the mutual relationships existing between man and the natural environment in which he is dwelling thru a detailed study of the life of the Indians of the Upper Amazon forest, the date gardeners of the Jerid and their shepherd neighbors, the mountain shepherds of Peru, the Newfoundland fisher folks, the Coppermine Eskimos, and the Iowa pioneer farmer.
2. The building up of a concept of the influence of position in latitude thru the study of these type environments and brief descriptions of other similar regions.
3. The introduction of the globe and map as sources of information.
4. The cultivation of an interest in geographic reading material.

The stories are based upon authentic sources, given a specific setting, vividly told, and clarified by well-chosen geographic pictures. The treatment of each type environment is satisfyingly complete. Numerous interesting games and exercises are provided which give something definite to do and check the information gleaned. Many of the facts tested, however, are not geographic relationships. New terms and map symbols are frequently introduced before there is imagery back of them. In the majority of cases, the explanations are inadequate and add little, if anything, to the book.

Western State Normal School
Kalamazoo, Michigan
LUCIA HARRISON

James Fairgrieve and Ernest Young. **The United States.** Book Four of the Series, Human Geography by Grades. 469 pages; 224 pictures, maps, and sketches. D. Appleton and Co., N. Y. 1925.

"The United States" contains a great amount of interesting and valuable geographic material which has not previously been incorporated in textbooks for the elementary grades. One of its most helpful features is the series of exceedingly clever little sketches showing in detail the relation of transportation lines to surface features, and the relation of cities to transportation routes. Some historical geography rather unusual to this grade has been introduced and should prove very useful in supplementing the information given in the basal texts

The organization is rather a curious one. The book is in two sections; one dealing with the United States east of the Mississippi, the other with the part west of the Mississippi. This divides some geographic regions which might with economy be treated as wholes. Just why Iowa should be treated in Chapter 14 under the heading "Wheat: North Dakota, South Dakota, Minnesota, and Iowa," and never mentioned in Chapter 2 which is entitled "Farming in the Corn Belt: Illinois and Indiana" is a question. One might also question the appropriateness of the title "Cattle and Milk: Nebraska, Kansas, Oklahoma, and Texas."

It seems rather a pity that the authors have hidden their nationality under the pronoun "our." Their speech betrayeth them in "head of corn" and "ear of wheat." It would be both interesting and profitable for our pupils to know that they are having a British interpretation of American activities. No British authors have taken the trouble to do this for our elementary grades before.

State Teachers College,
Cedar Falls, Iowa
ALISON E. AITCHISON

R. DeC. Ward. **The Climates of the United States.** 518 pp., frontispiece and 145 figs. in text, Ginn and Co., Boston. 1925. $4.00.

A new book by Professor Robert DeC. Ward immediately attracts the attention of teachers of geography. They have used his "Practical Exercises in Elementary Meteorology," "Hann's, 'Handbook of Climatology,'" and his "Climate, Considered Especially in Relation to Man." Standard for so many years they seem to hold a unique position among texts used in geography teaching. Their long survival has not because they were prepared with such care that none has been able to publish better ones. The new book, "The Climates of the United States," is of the same character. Like the others, it will outlast its substantial binding.

"The Climate of the United States," more a climatology than simply a discussion of the climates, supplies a threefold need in furnishing, a reference book for the teacher, a textbook for the college student, and a bibliography and historical perspective for the graduate student. The comprehensiveness of the book immediately impresses a reader. The conciseness of discussion and freedom from verbosity and unessentials, arrest attempts at skimming—it is cream already. An historical chapter and a brief summary of the major climatic controls open the book. Climatic provinces of the United States then introduce the body of the work, in which the elements of climate are discussed for the country as a whole: the weather element, very appropriately, comes first and gives us a view of the ensemble of temperature moisture and winds before they are dissected in the following chapters. Temperature, frost, prevailing winds, annual rainfall, seasonal rainfall types and other characteristics of rainfall, snowfall, humidity, and sunshine, all the elements usually discussed in climatologies, follow in order. Then come features of special interest: thunderstorms, tornadoes, cold winds, hot waves, hot winds. A masterful summary of the climates in the different climatic provinces knits all together once more. Tho the practical aspects of climate are considered thruout the book, two topics are given special emphasis: climate and health, and climate and crops. A brief chapter on the climates of Alaska and an ample index conclude the book.

Points to criticize are hard to find. From cover to cover, not one instance of misplaced type was found, and but very few slips, all inconsequential. Only two omissions of what the reviewer considers important references were noticed. The late A. D. Udden's comprehensive study of the distribution of weather elements about the centers of highs and lows in the Middle West (*Mo. Weather Rev., Feb.*, 1923) would seem worthy of mention on p. 56. Chapter XXI, "Climate and Health," is hardly complete without at least a reference to Dr. Ellsworth Huntington's weather and health studies ("*Civilization and Climate*"). The numerous diagrams of monthly courses of temperature and rainfall might have been clearer had there been 12 instead of 11 monthly spaces, and, in the case of the rainfall curves, if the lowest line had been zero instead of one inch below zero. Some of the maps showing the distribution of cloudiness, rainy days, etc., also fail somewhat in effectiveness, since there is no continuous grading of shade, from lowest to highest values. The colored annual rainfall map that forms the frontispiece, is, however, very well executed from the cartographic standpoint.

The conservative nature of Professor Ward's treatment of ocean currents as a direct control of climate (p. 21, and incidentally (pp. 366 and 452) will be appreciated by teachers. But one regrets that the indirect influence of ocean currents is virtually ruled out. For example, in the eastern United States were it not for the warmth of our Gulf Stream the cold season winds from the continental interior would not be so strong.

Professor Ward has done a noteworthy piece of work; his book deserves all praise and a widespread distribution. In fact, it is indispensable for any geography reference shelf in American schools and colleges.

Clark University CHARLES F. BROOKS

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Teachers may pursue systematic studies in geography, under personal direction, by joining the Home Study Classes of Clark University. In five courses, subject matter and method are developed for the teacher of geography in the elementary school. These are: (1) The Teaching of Geography in the Elementary School, (2) The Teaching of Home Geography and World as a Whole, (3) The Teaching of North America, (4) The Teaching of South America, Europe and Asia, (5) The Teaching of Geographic Factors and United States in its World Relations.

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Each course is of college grade and when satisfactorily completed, gives a credit of three semester hours. Enrollment may be made at any time. A course should be completed within twelve months.

A descriptive announcement of all these courses and two sample lessons of any selected course will be sent on request.

A bibliography of more than 500 specific references from recent literature on the teaching of geography will be sent to any address. Price 15 cents. Fourth revised edition, 1925.

Six weeks Summer School, 1926, Monday, July 5, to Friday, August 13. Geography and related subjects. Send for bulletin ready for distribution early in 1926.

CLARK UNIVERSITY, Home Study Department
WORCESTER, MASSACHUSETTS

New Books

David Starr Jordan and Katherine Cather. **High Lights of Geography: Europe.** 320 pp., illustrated. World Book Co., N.Y. 1925.

Europe is the second book of this series. The first one, North America, was reviewed in the January number of the *Journal.*

Mark Jefferson. **Principles of Geography.** 135 pp., illustrated. Harcourt, Brace and Co., N.Y. 1926. $2.50.

Thought stimulating exercises and problems that test the subject matter presented in the text may be recorded on the blank pages provided in the book.

Ragnar Numelin. **Some Aspects of the Geography of Finland.** 33 pp., 16 photos and map. The Government Printing Office, Helsingfors. 1925.

This pamphlet, published in English, may be secured from the Finnish Legation, Washington, D. C.

Stephen Sargent Visher. **Tropical Cyclones of the Pacific.** Bernice P. Bishop Museum. Bulletin 20. 163 pp. Published by the Museum, Honolulu, Hawaii. 1925.

This pamphlet is based on field work done by Dr. Visher in 1921-22 in Hawaii, Fiji, southeastern Australia and the Far East. It is available for school libraries for postage.

FORTHCOMING ARTICLES

Among the many good things to appear in future numbers of the *Journal* are the following.

1. The Dependence of the Social Sciences Upon Geographic Principles.
   By Ella Jeffries

2. Twelve Hundred Selected Place Names.
   By Douglas C. Ridgley

3. Objectives of Elementary Education and How Geography Helps in Attaining Them.
   By W. S. Dakin

4. Reading Purposes in Geography.
   By P. W. Hutson

5. Some Principles of Economic Geography.
   By G. T. Renner

6. Notes on the Geography of Trinidad.
   By Preston E. James

7. The School Neighborhood.
   By Ella Huntting

8. Gateways of the World: A Project.
   By Mary J. Washington

9. Forestry. An Eighth Grade Project.
   By Winifred D. Broderick

10. France.
   By Amy Ware

11. Suggestions to Rural School Teachers.
   By Vincent Gatto

12. A Normal School Project.
   By Geo. F. Howe

13. An Isolated Industry: Pottery of North America.
   By Ivan Stowe Clark

14. The Geography of Imerina, Madagascar.
   By Daniel R. Bergsmark

15. Red Rock Canyon, California.
   By W. J. Miller

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AMONG THE MAGAZINES

The Swedish Society of Anthropology and Geography has issued a double sized number of its publication *Ymer* in honor of Professor Gunnar Anderson's sixtieth birthday. Professor Anderson has been the editor of *Ymer* for the past twenty-seven years, and secretary of the Society for twenty-five years.

The contributions to *Ymer* are largely the results of research work, much of which is field work done in the region being investigated. The Society frequently lends aid to such undertakings. In the current number of *Ymer* are articles on exploration in Ts'Ung-Ling, Iceland, Borneo, the Taimur Peninsula, and the highlands and east montane country of Peru. The practice of lip ornamentation in Africa, the frontiers of Finland, the geographic regions of Sweden, the descending winds, winds of the sea and those of hailstorms are a few of the other topics discussed. Several of the contributors are well known in the United States through their lectures, publications, or through courses they have offered in some of our universities.

Where does the South American go for his outdoor recreation? Children are fairly well informed on the playgrounds of North America and Europe, but few of them think of the South American as having any other amusement than the opera or race course. A few pictures of beauty spots in the Chile-Argentine Lake Region appear in the November number of the *Pan American Magazine.*

Economic Geography, a Clark University Publication, announces a series of six articles on "Agricultural Regions of the World." The first of this series, "Agricultural Regions of Europe" by Olof Jonasson, appeared in the October issue. The second number, by O. E. Baker, is on North America's agricultural regions and will appear in the April number.

Partly due to the cooperation between schools and churches, the standards of Bible instruction for elementary school children are being raised. Geography teachers engaged in this work may add much to the interest of these Bible school classes by supplying the children with concrete imagery of the natural environment in which the various Bible scenes were enacted. The following publications on this region may prove helpful.

"The Wilderness of Judea and the Nomadic Ideal" by Chester C. McCown, and the "Geography of Palestine and Egypt thru the Story of Joseph" by Lucille Foust, in *Journal of Geography,* Dec., 1924.

"Climatic Influences in some Ancient Mediterranean Religions" by Ellen Churchill Semple, in *Scottish Geographical Magazine* (Edinburgh), July and Sept., 1925.

"Notes on Geographical Points in Biblical Texts" by J. Davis Bryan in *Geographical Teacher* (Aberystwyth, Wales), Autumn, 1925.

"The Historical Geography of the Holy Land" by George Adam Smith. A. C. Armstrong and Son, New York.

NATIONAL COUNCIL OF GEOGRAPHY TEACHERS REDUCED RATES TO PHILADELPHIA MEETING

A special round-trip fare of one and one-half times the regular one-way fare on the certificate plan is available to all those attending the Philadelphia meeting of the National Council. Tickets are to be purchased within the following time limits.

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December 17 to 23 inclusive, from Arizona, British Columbia, California, Idaho, Nevada, Oregon, Washington.

December 21 to 27 inclusive, from Colorado (except Julesburg), Montana, New Mexico, Utah, Wyoming, and the Southwestern lines inclusive of Oklahoma and Texas. (The following Southwestern lines are not party to the reduced fares: Arkansas and Louisiana-Missouri; Ft. Smith and Western; Graysonia; Nashville and Ashdown; Kansas, Oklahoma and Gulf; Louisiana and Arkansas; Mississippi River and Bonne Terre; National Railways of Mexico; St. Louis, El Reno and Western.)

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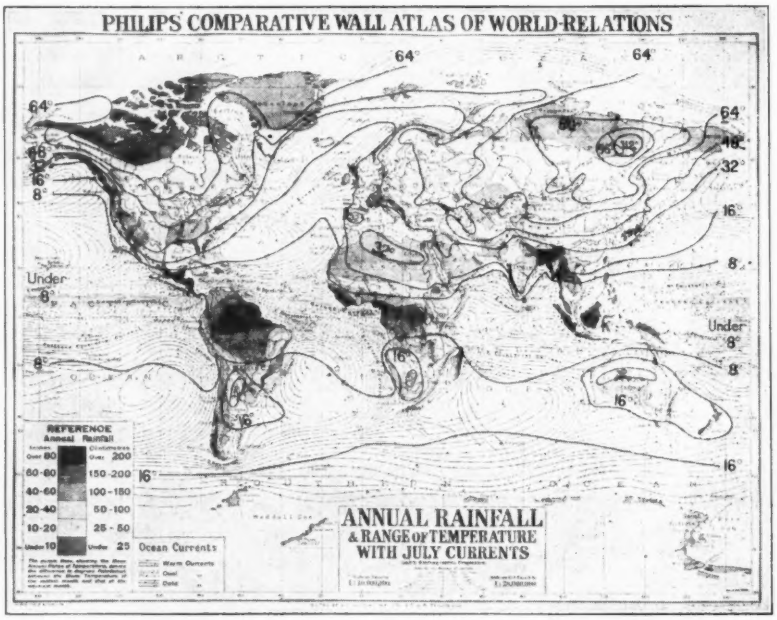

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FOR TEXTBOOKS

NEW BOOKS

J. R. McKey and H. S. Giusta. **United States Trade with Latin America in 1925.** Part I. Northern Latin America. Trade Information Bulletin No. 418. 57 pp. 1926. Bureau of For. and Dom. Commerce, Wash., D. C. 10 cents.

The details of our trade with Latin America are set forth in tables for the region as a whole, and for the individual Republics. The analysis of this trade shows that our imports of 1925 are less than those of 1924 due to the drop in sugar prices, but our exports have increased by 14.5 per cent. Furthermore, in nearly every case our share of the total foreign trade has increased at the expense of our competitors. Because the Caribbean countries usually specialize in the production of some single product like sugar cane, bananas, sisal, and mineral oil, they must depend to a large extent on the outside world for their food, clothing, and other needs. Hence, we sell them a variety of products from our farms and factories similar to those sold in the average city and rural district of the United States. This is in direct contrast with our Southern Latin American trade which takes comparatively less of our foodstuffs, but more machinery and equipment of all kinds for manufacturing and transportation.

These bulletins may be secured from the Superintendent of Documents, Government Printing Office, Washington, D. C.

W. S. Dakin. **Geography of Connecticut.** 162 pp., 128 illustrations. Ginn and Co., Boston. 1926. 92 cents.

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Louie G. Ramsdell. **Teachers' Manual of Geography for Grades III to VI.** Bulletin of the State Department of Education, Boston, Mass. 44 pp. 1926.

A definite aim is stated for each grade, leading to the establishment of certain geographic principles. The outlined work centers about one or more major topics. The third grade work is correlated with literature and music. Bibliographies for students and teachers are included.

W. S. Crockett. **Berwickshire and Roxburghshire.** 200 pp. Illustrated. The Cambridge University Press. London. 1926. $1.25.

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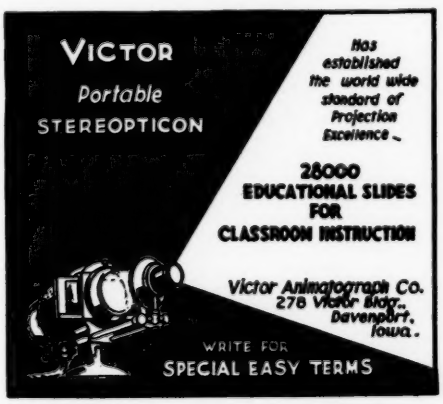

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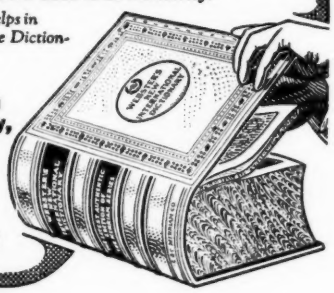

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